

عنوان مقاله:

Efficient Three-Component Synthesis of ۲,۴,۵-Trisubstituted Imidazoles using Silica-Tethered Cuprous Acetophenone Thiosemicarbazone

محل انتشار:

چهارمین کنگره ملی شیمی و نانوشیمی از پژوهش تا فناوری (سال: 1400)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

The synthesis and characterization of silica-tethered cuprous acetophenone thiosemicarbazone (STCATSC) as a highly efficient heterogeneous nano catalyst is explained. The catalytic activity of STCATSC was examined in the efficient three-component synthesis of ۲,۴,۵-trisubstituted imidazoles. The highly substituted imidazoles were efficiently prepared via three-component reaction of benzil, aldehydes, and ammonium acetate in the presence of STCATSC at solvent-free condition in good to excellent yields. Various microscopic and spectroscopic techniques were used for characterization of STCATSC which include XRD, EDS, SEM, FT-IR, and TGA. STCATSC proved to be an inexpensive, stable, reusable and environmentally benign hybrid catalyst

کلمات کلیدی:

Solvent-free, STCATSC, Three-component synthesis, ۲,۴,۵-Trisubstituted imidazoles

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